P15: Universidad Politécnica de Valencia UPVLC (Spain)

Description of expertise & activities

The participation of the Universidad Politécnica de Valencia (UPVLC – www.upv.es) is composed of the activities of two leading research centers.

The Optical & Quantum Communications Group (OQCG www.gco.upv.es) is composed of 20 people. The OQCG was funded in 1993 and now is involved in the ITEAM Institute (ITEAM, Institute for Telecommunications and Multimedia Applications). Most of the members of the OQCG are giving lectures related the Optical Communications and Systems in the three campus of the UPVLC. OQCG members have over three hundred publications in international journals and international conferences. Also they have given more than twenty invited conference papers related to the Optical Communications. OQCG has been involved in a dozen of IST-projects and also some of them have been leading by the OQGC members: IST-LABELS and IST-OFFSSOHO. The main research activities of the OQCG are: optical networks and the design and fabrication of photonic devices for the improvement of the optical networks.

The Nanophotonics Technology Center (NTC - www.ntc.upv.es) is composed of more than 50 people including associated professors, post-docs, PhD students and engineers from several academic research groups in Spain. It disposes of a 500sqm class 10-100 clean room (under construction) for wafer processing and its optical and electrical inventory comprises state-of-the-art equipment like e.g., 44 Gb/s PRBS/BER test-set, 80 GHz eye-diagram tester, electrical signal generators (up to 50 GHz) and detectors (170 GHz). The main areas of expertise cover i) Hybrid fiber-radio systems and networks, (ii) high-speed DWDM optical networks, (iii) Biophotonics, and, (iv) photonic crystals, in which the NTC has been actively involved in several EU R&D programs coordinating projects FP5 OBANET, FP6 GANDALF, LASAGNE, SABIO and PHOLOGIC and participating in FP5 TOPRATE, FP6 IPHOBAC, UROOF and NoEs such as ACE, ISIS, e-Photon/ONe(+) and EPIXNET.

Tasks within BONE

WP01	Dissemination of project results (concertation meetings, workshops, conferences …)
WP02	Teaching
WP12	VCE Services and Applications
WP13	VCE Access Networks. RoF links, FTTH and use of multimode fibres
WP14	VCE Optical Switching: Optics in switching devices, new switching devices
WP15	VCE Transmission Techniques: Mitigation & Monitoring.
WP22	MPLS, GMPLS and routing
WP23	Radio over Fibre

Key personnel

Salvador Sales is professor at UPVLC. He is co-author of 4 patents and he has been leading more than 10 national and European Research Projects. He is co-author of more than 60 international journals in the topics related with Photonics and Optical Networks.

José Capmany is professor at UPVLC and the leader of the OQCG. He is co-author of 7 patents and more than 100 papers in well-known journals. He has given more 15 invited talks in international conferences in the related with Optical Networks and Photonics. He has been the leader of more than 20 European and National Research projects. He is the coordinator of the Spanish Agency of Evaluation of National Research Projects related with Telecommunications.

Javier Martí is professor at UPVLC and the director of NTC. He has authored 7 patents and over 150 international journal or conference papers in the field of fiber-radio systems, access networks, advanced optical processing techniques, and planar photonic crystals. He has led many national and international research projects and coordinated FP5 IST-OBANET, FP6 IST-GANDALF and IST-LASAGNE. He is also the recipient of several academic and industrial awards in Spain and is or has been a member of several Technical Program Committees of several conferences as ECOC, Microwave Photonics and several other international workshops.